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EXAMINER

HOSSAIN, FARZANA E

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,049

Applicant(s)

FICCO ET AL.

Examiner

Farzana E. Hossain

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 31 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to one or more instructions carried on computer readable medium, the one or more sequences of one or more instructions are executed by one or more processors, which has been held non statutory. The claims do not lead to a practical application, merely data for a communication method on a computer readable medium.

Claim Objections

3. Claim 26 is objected to because of the following informalities: "said bulk storage device." The Office assumes "said bulk storage device" to be --mass storage device--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 11, 16, 17, 16, 17, 26, 31/16, 17, 26 are rejected under 35

U.S.C. 102(e) as being anticipated by Tsukidate et al (US 6,507,950 and hereafter referred to as "Tsukidate").

Regarding Claims 1, 16, 31/16, Tsukidate discloses a system and method for organizing data including electronic program guide (EPG) data for use by an application: a set top box or broadcasting receiving unit (Figure 10, 31, Figure 5, 31) including a physical memory or main/internal memory (Figure 10, 55), a mass storage device or hard disk drive (HDD) (Figure 10, 51), a processor or data processing control unit/microprocessor (MPU) (Figure 10, 55); the MPU is connected to the main memory and the HDD (Figure 10, 55, 51) and the MPU can control the data processes for the storage and manipulate the EPG data so that a substantial portion or the program basic information can be prepared and stored in the internal memory of the MPU (Figure 10, 55, Column 12, lines 56-67, Column 13, lines 1-14) for instantaneous access from the internal memory (Column 13, lines 51-56). Regarding Claim 31, the broadcasting receiving unit or computer readable medium has (Figure 10, 31) has a processor (Figure 10, 55) with programs for executing various data processing and other types of data based (Column 12, lines 23-26) and the broadcasting receiving unit receives and organizes the data (Figure 10, 31, Column 10, lines 10-40).

Regarding Claims 2, 17, 31/17, Tsukidate discloses all the limitations of Claims 1, 16, 31/16. Tsukidate discloses that the MPU controls the process to add data from the HDD to the internal memory to maintain the amount data need for the EPG application (Column 12, lines 56-67, Column 13, lines 1-14).

Regarding Claims 11, 26, 31/26, Tsukidate discloses all the limitations of Claims 1, 16, 31/16. Tsukidate discloses that the mass storage device comprises a hard disk or HDD (Figure 10, 51).

6. Claim 32 is rejected under 35 U.S.C. 102(e) as being anticipated by Bhatt (US 2002/0073426).

Regarding Claim 32, Bhatt discloses a system and method for efficient storage of including electronic program guide (EPG) data for use by an application: a set top box or receiver (Figure 1, 100) including a physical memory or DRAM (Figure 1, 186), a mass storage device or hard drive (HD) (Figure 1, 174), and a processor or central processing control (CPU) (Figure 1, 188). Bhatt discloses a daily download of EPG information to be stored on the HD and that there is an algorithm that matches the preferred or displayable data needed in order to add the EPG data from the HD to the DRAM or the CPU controls the data processes including adding data from the mass storage device to the DRAM (Page 2, paragraph 0026, Page 3, paragraph 0031) and updating the data in the HD and DRAM every day or after the daily download and the data is updated in both HD and then matched with the algorithm for the DRAM for updating the DRAM so the data used by the application for EPG is rapidly accessed,

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(Pages 2-3, paragraphs 0021, 0029-0031) and that data is removed from HD to DRAM so that desired data has rapid access (Page 2, paragraph 0022) and data is removed from DRAM if it is data that does not need rapid access (Page 2, paragraph 0022), which reads on that the data is removed from the HD and DRAM so as to ensure data used by application can be accessed from the physical memory without delay.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-8, 10 18-23, 25, 31/18-23, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukidate in view of Bhatt.

Regarding Claims 3, 18, 31/18, Tsukidate discloses all the limitations of Claims 2, 17, 31/17. Tsukidate is silent on removing data from mass storage and internal memory to ensure that the data is accessed without delay. Bhatt discloses the CPU or processor in a set top box (Figure 1, 188) comprises an algorithm that matches the preferred or displayable data needed in order to add the EPG data from the HD to the DRAM or the CPU controls the data processes including adding data from the mass storage device to the DRAM (Page 2, paragraph 0026, Page 3, paragraph 0031). Bhatt discloses updating the data in the HD and DRAM every day or after the daily download

and the data is updated in both HD and then matched with the algorithm for the DRAM for updating the DRAM so the data used by the application for EPG is rapidly accessed, (Pages 2-3, paragraphs 0021, 0029-0031) and that data is removed from HD to DRAM so that desired data has rapid access (Page 2, paragraph 0022) and data is removed from DRAM if it is data that does not need rapid access (Page 2, paragraph 0022), which reads on that the data is removed from the HD and DRAM so as to ensure data used by application can be accessed from the physical memory without delay.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Tsukidate to include that the data is removed from the HD and DRAM so as to ensure data used by application can be accessed from the physical memory without delay (Pages 2-3, paragraph 0022, 0029-0031) as taught by Bhatt in order to reduce the amount of memory with rapid access so that costs are not high (Page 1, paragraph 0011) as disclosed by Bhatt.

Regarding Claims 4, 19, 31/19, Tsukidate and Bhatt disclose all the limitations of Claims 3, 18, 31/18. Tsukidate discloses that the processes are run by the processor so that the EPG produces instantaneously for the display. Bhatt discloses that the processes are controlled by the operating system so the CPU can run algorithms the data is transferred to the DRAM so that preferred EPG data is produced without delay or so that these processes do not interfere with running the application of the EPG (Page 2, paragraph 0026, Page 3, paragraph 0031).

Regarding Claims 5, 20, 31/20, Tsukidate discloses all the limitations of Claims 1, 16, 31/16. Tsukidate discloses that processor directs data with a high frequency

utilization rate for instantaneous access or program basic information to be stored in the internal memory, the rest of the data or master data or data that is most likely to be accessed in the more distant future is stored in the HDD. Tsukidate is silent on the data being temporally sorted into data that is most likely to be accessed. Bhatt discloses that data is stored in the HD or mass storage device (Page 3, paragraph 0031), data is then temporally sorted (Page 2, paragraph 0029) between preferred and not preferred data, the preferred data is stored in the DRAM or physical memory and the not preferred is stored in the HD (Pages 2-3, paragraphs 0022, 0029-0031). Therefore, it would have been obvious to one of ordinary skill in the art to modify Tsukidate to include that the data is then temporally sorted (Page 2, paragraph 0029) between preferred and not preferred data, the preferred data is stored in the DRAM or physical memory and the not preferred is stored in the HD (Pages 2-3, paragraphs 0022, 0029-0031) as taught by Bhatt in order to reduce the amount of memory with rapid access so that costs are not high (Page 1, paragraph 0011) as disclosed by Bhatt.

Regarding Claims 6, 21, 31/21, Tsukidate and Bhatt disclose all the limitations of Claims 5, 20, 31/20. Tsukidate discloses that the processor runs the application with the program basic information stored in the internal memory (Column 14, lines 23-35) and that the program basic information is only needed to run the application, the master data stored in the HDD is not needed, therefore, the program basic information that is stored in the internal memory is all that is needed to run the EPG (Column 13, lines 3-14).

Regarding Claims 7, 22, 31/22, Tsukidate discloses all the limitations of Claims 1, 16, 31/16. Tsukidate discloses the MPU controls the EPG data so that only the program basic information is accessed for high utilization frequencies (Column 13, lines 18-25). Tsukidate is silent on temporal window. Bhatt discloses that storage of the data is based on up to 14 days in the DRAM for the most preferred or common usage scenarios when displaying the EPG (Pages 2-3, paragraphs 0029-0031). Therefore, it would have been obvious to one of ordinary skill in the art to modify Tsukidate to include storage of the data is based on up to 14 days in the DRAM for the most preferred or common usage scenarios when displaying the EPG (Pages 2-3, paragraphs 0029-0031) as taught by Bhatt in order to reduce the amount of memory with rapid access so that costs are not high (Page 1, paragraph 0011) as disclosed by Bhatt.

Regarding Claims 8, 23, 31/23, Tsukidate discloses all the limitations of Claims 1, 16, 31/16. Tsukidate discloses the MPU controls the EPG data so that only the program basic information is accessed for high utilization frequencies (Column 13, lines 18-25). Bhatt discloses that storage of the data is based on most preferred programming or common usage scenarios when determining what EPG information to display (Pages 2-3, paragraphs 0029-0031) and that the CPU can adjust and control matches for preferred data or most common usage if a match is found between upcoming programming and preferences (Page 3, paragraph 0032), or the CPU can manipulate data if there are other usage scenarios if the data is not stored in the cache resulting in a cache miss. Therefore, it would have been obvious to one of ordinary skill in the art to modify Tsukidate to include storing of the data is based on most

preferred programming or common usage scenarios when determining what EPG information to display (Pages 2-3, paragraphs 0029-0031) and that the CPU can adjust and control matches for preferred data or most common usage if a match is found between upcoming programming and preferences (Page 3, paragraph 0032),) as taught by Bhatt in order to reduce the amount of memory with rapid access so that costs are not high (Page 1, paragraph 0011) as disclosed by Bhatt.

Regarding Claims 10, 25, 31/25, Tsukidate discloses all the limitations of Claims 1, 16, 31/16. Tsukidate discloses that there is a physical or internal/main memory (Figure 10, 55). Tsukidate is silent on the memory comprising a random access memory (RAM). Bhatt disclose the physical memory comprises a RAM or DRAM (Figure 1, 186). Therefore, it would have been obvious to one of ordinary skill in the art to modify Tsukidate to include the physical memory comprises a RAM or DRAM (Figure 1, 186) as taught by Bhatt in order to reduce the amount of memory with rapid access so that costs are not high (Page 1, paragraph 0011) as disclosed by Bhatt.

9. Claims 9, 12-15, 24, 27-30, 31/24, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukidate in view of Hofmann (US 5,883,677).

Regarding Claims 9, 24, 31/24, Tsukidate discloses all the limitations of Claims 1, 16, 31/16. Tsukidate discloses the data comprises program guide or EPG data for the application comprising a program guide or EPG. Tsukidate disclose a service transmission system transmitting master data (Figure 5, 21, 22, 8). Tsukidate is silent on the EPG for a plurality of sources. Hofmann discloses a system where EPG data is stored in one mass storage device or buffers (Figure 4B, 420) that receives program

information from multiple sources or an EPG for a plurality of sources (Figure 4B, Column 3, lines 20-41) and that the integrated or preferred data to be displayed is transferred to a merged database (Figure 4B, 424). Therefore, it would have been obvious to one of ordinary skill in the art to modify Tsukidate to include that the EPG is for a plurality of sources (Figure 4B, Column 3, lines 20-41) as taught by Hofmann in order to make it more convenient to a user who has multiple services (Column 2, lines 16-22) and to be able receive, organize and display information for services from multiple sources (Column 1, lines 10-14) as disclosed by Hoffmann.

Regarding Claims 12, 27, 31/27, Tsukidate discloses all the limitations of Claims 9, 24, 31/24. Tsukidate discloses a communications channel (Figure 5, 5). Hoffman discloses that there is communications channel configured to transmit the EPG data to the set top box (Figure 4B, 310, 318, 314).

Regarding Claims 13, 28, 31/28, Tsukidate discloses all the limitations of Claims 12, 27, 31/27. Tsukidate discloses a broadcasting wave signal (Column 9, lines 53-55). Hoffman discloses that the communications channel is satellite communications (Figure 4B, 318), a cable communications channel (Figure 4B, 310).

Regarding Claims 14, 29, 31/29, Tsukidate discloses all the limitations of Claims 9, 24, 31/24. Tsukidate discloses that the program guide is configured to display the EPG data on a display unit coupled the broadcast receiving unit (Figure 10, 23) in a weekly table in order of time, channels, and other attributes (Column 7, lines 8-15) including program title, descriptions and category (Column 7, lines 60-67, column 13, lines 18-23).

Regarding Claims 15, 30, 31/30, Tsukidate discloses all the limitations of Claims 14, 29, 31/29. Tsukidate discloses that program identifications or attributes include information about descriptions, performers or actors, the broadcasting channel (Column 7, lines 60-67, Figure 5).

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 16, 31/16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 17, and

31/17 (respectively) of copending Application No. 09/978469. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are broader in scope and therefore would unduly extend the time wise monopoly afforded to the other claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of copending Application No. 09/978,469. Allowing Claims 1 of the instant application would result an unjustified timewise extension of the monopoly granted for the limitations offered by Claim 2 of US Application 09/978,469.

Regarding Claim 1 of the instant application, limitation "A system for organizing data for use by an application" is met by the limitation "a system for efficient storage of data for use by an application" of Claims 1 and 2 of Application 09/978,469, as organizing data for use of an application can include efficiently storing data for use in an application, note that Claim 1 of instant application does include storing data.

The instant application's limitation "a set top box" is met by the limitation "set top box" of Application 09/978,469.

The instant application's limitation "a physical memory" is met by the limitation "a physical memory" of Application 09/978469.

The instant application's limitation "a mass storage device" is met by the

limitation "a bulk storage device" of Application 09/978469, as bulk and mass storage have similar definitions in the art.

The instant application's limitation "a processor operatively connected to said physical memory and mass storage device for implementing said application" is met by "a memory management unit (MMU) coupled between said application and said physical memory and said bulk storage device" of Application 09/978469, as a processor manages memory for implementing an application, which reads on a MMU.

The instant application's limitation "wherein physical memory and said mass storage device are configured to store said data" is met by "wherein said physical memory and said bulk storage device are configured to store said data" of Application 09/978469.

The instant application's limitation "wherein in said processor controls storage and manipulation of said data between said physical memory and said mass storage device so that a substantial portion of the data to be used by said application" is met by "MMU is configured to page pages of said data stored in said physical memory to and from said bulk storage device" of Application 09/978469, as a processor manages memory between or two and from the physical memory and mass storage which stores the data.

The instant application's limitation is missing "said MMU is configured to translate a virtual address provided by said application to a physical address used by one of said physical memory and said bulk storage device." It would be obvious to modify Application 09/978469 to make the claim broader.

10. Claims 16 and 31/16 are similar to the limitations of Claim 1. The differences are stated below.

Regarding Claim 16 of the instant application, limitation “A method for organizing data for use by an application” is met by the limitation “A method for efficient storage of data for use by an application” of Claims 16 and 17 of Application 09/978,469, as organizing data for use of an application can include efficiently storing data for use in an application, note that Claim 16 of instant application does include storing data.

Regarding Claim 31/16 of the instant application, limitation “A computer-readable medium carrying one or more sequences of one or more instructions for organizing data for use by an application, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps recited in any one of claims 16-30” is met by the limitation “A computer-readable medium carrying one or more sequences of one or more instructions for organizing data for use by an application, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps recited in any one of claims 16-30” of Claims 31/16 and 31/17 of Application 09/978,469, as organizing data for use of an application can include efficiently storing data for use in an application, note that Claim 31/16 of instant application does include storing data.

This is a provisional obviousness-type double patenting rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Park (US 6,401,179).

Park discloses a system with a set top box, processor, and two memories to store EPG information (Figure 3) managed by the processor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farzana E. Hossain whose telephone number is 571-272-5943. The examiner can normally be reached on Monday to Friday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FEH
February 10, 2006



VIVEK SRIVASTAVA
PRIMARY EXAMINER